

## SEQUENCE LISTING

&lt;110&gt; SmithKline Biologicals S.A.

&lt;120&gt; Novel compounds

&lt;130&gt; BM45379

&lt;160&gt; 10

&lt;170&gt; FastSEQ for Windows Version 3.0

&lt;210&gt; 1

&lt;211&gt; 2277

&lt;212&gt; DNA

<213> *Neisseria meningitidis*

&lt;400&gt; 1

atggcacaaa	ctacactcaa	acccattgtt	ttatcaattc	ttttaatcaa	cacacccctc	60
ctcgcccaag	cgcatgaaac	tgagcaatcg	gtgggcttgg	aaacgggttac	cgctcgctggc	120
aaaagccgtc	cgcgcgccac	atcagggctg	ctgcacactt	cgaccgcctc	cgacaaaatc	180
atcagcggcg	acaccttgcg	acaaaaagcc	gtcaacttgg	gcgatgcttt	ggacggcggtg	240
ccgggcattc	acgcctcgca	atacggcggc	ggcgcgtccg	ctcccgttat	tcgcggtcaa	300
acaggcagac	ggattaaagt	attgaaccat	cacggcgaaa	caggcgatat	ggcggatttt	360
tcgcccgatc	acgccattat	ggtagatacc	gccttgtcgc	aacaggtcga	aatcctgcgc	420
gggcccgtta	cgctcttgta	cagctcgggc	aatgtggcgg	ggctggtcga	tgttgccgat	480
ggcaaaatcc	ccgaaaaaat	gcctgaaaac	ggcgtatcgg	gcgaactcgg	attgcgtttg	540
agcagcggca	atctggaaaa	actcacgtcc	ggcggcatca	atatcggttt	gggcaaaaac	600
tttgtattgc	acacggaagg	gctgtaccgc	aaatcggggg	attacgccgt	accgcgttac	660
cgcaatctga	aacgcctgcc	cgacagccca	cgccgattcg	caaacgggca	gcatcgggct	720
gtcttggtt	ggcgaaaaag	gttttatcgg	cgtacgtaca	gcgaccgtcg	cgaccaatat	780
ggtctgcctg	cccacagcca	cgaatacgat	gattgccacg	ccgacatcat	ctggcaaaaag	840
agcttgatta	acaaacgcta	tttacagctt	tatccgcacc	tgttgaccga	agaagacgtc	900
gattacgaca	atccgggctt	gagctgcggc	ttccacgacg	acgatgatgc	acacgcccac	960
gcccacaacg	gcaaaccttg	gatagacctg	cgcaacaaac	gctacgaact	ccgcgcggaa	1020
tggaagcagc	cattccccgg	ttttgaagcc	ctgcgcgtac	acctgaaccg	caacgactac	1080
caccacgacg	aaaaagcagg	cgatgcagtc	gaaaactttt	ttaacaacca	aacgcaaaaac	1140
gcccgcacg	agttgcgcca	ccaaccata	ggcgcgtctga	aaggcagctg	gggcgtgcaa	1200
tatttgggac	aaaaatccag	tgctttatct	gccacatccg	aagcgggtcaa	acaaccgatg	1260
ctgcttgaca	ataaagtgca	acattacagc	tttttcggtg	tagaacaggc	aaactgggac	1320

WO 00/55327

PCT/EP00/01955

```

aacttcacgc ttgaaggcgg cgtacgcgtg gaaaaacaaa aagcctccat cgcgtacgac 1380
aaagcattga ttgatcggga aaactactac aagcagcccc tgcccgaact cggcgcgcac 1440
cgccaaaccg cccgctcgtt cgcactttcg ggcaactggt atttcacgcc gcaacacaaa 1500
ctcagcctga cgcctccca tcaggaacgc ctgccgtcaa cgcaagagct gtacgcacac 1560
ggcaaacacg ttgccaccaa cacttttgaa gtcggcaaca aacacctgaa caaagagcgt 1620
tccaacaaca tcgaactcgc gttgggttac gaaggcgacc gctggcaata caatctggca 1680
ctctaccgca accgcttcgg caactacatt tacgccccaa ccttaaacga cggacgcggc 1740
cccaaatcca tcgaagacga cagcgaaatg aagctcgtgc gctacaacca atccggtgcg 1800
gactttctac gcgcggaagg cgaaatctac ttcaaaccga caccgcgcta ccgcacgggc 1860
gtttccggcg actatgtacg aggcgcgtctg aaaaacctgc cgtccctacc cggcagggaa 1920
gatgcctacg gcaaccgtcc tttcatcgcg caggacgacc aaaacgcccc tcgcgttccg 1980
gctgcgcgcc tcggcttcca cctgaaagcc tcgctgaccg accgcatcga tgccaatttg 2040
gactactacc gcgtgtttgc ccaaaacaaa ctgccccgt acgaaacgcg cagccccgga 2100
caccatattg tcaacctcgg cgcaaactac cgccgcaata cgcgctatgg cgagtggaat 2160
tggtacgtca aagccgacaa cctgctcaac caatccgttt acgcccacag cagcttcctc 2220
tctgatacgc cacaatggg ccgcagcttt accggtggcg taaactgaa gtttttaa 2277

```

&lt;210&gt; 2

&lt;211&gt; 758

&lt;212&gt; PRT

<213> *Neisseria meningitidis*

&lt;400&gt; 2

```

Met Ala Gln Thr Thr Leu Lys Pro Ile Val Leu Ser Ile Leu Leu Ile
 1           5           10          15
Asn Thr Pro Leu Leu Ala Gln Ala His Glu Thr Glu Gln Ser Val Gly
 20          25          30
Leu Glu Thr Val Thr Val Val Gly Lys Ser Arg Pro Arg Ala Thr Ser
 35          40          45
Gly Leu Leu His Thr Ser Thr Ala Ser Asp Lys Ile Ile Ser Gly Asp
 50          55          60
Thr Leu Arg Gln Lys Ala Val Asn Leu Gly Asp Ala Leu Asp Gly Val
 65          70          75          80
Pro Gly Ile His Ala Ser Gln Tyr Gly Gly Gly Ala Ser Ala Pro Val
 85          90          95
Ile Arg Gly Gln Thr Gly Arg Arg Ile Lys Val Leu Asn His His Gly
100         105         110
Glu Thr Gly Asp Met Ala Asp Phe Ser Pro Asp His Ala Ile Met Val
115         120         125
Asp Thr Ala Leu Ser Gln Gln Val Glu Ile Leu Arg Gly Pro Val Thr
130         135         140
Leu Leu Tyr Ser Ser Gly Asn Val Ala Gly Leu Val Asp Val Ala Asp
145         150         155         160
Gly Lys Ile Pro Glu Lys Met Pro Glu Asn Gly Val Ser Gly Glu Leu

```

3

WO 00/55327

PCT/EP00/01955

515                      520                      525  
 Phe Glu Val Gly Asn Lys His Leu Asn Lys Glu Arg Ser Asn Asn Ile  
 530                      535                      540  
 Glu Leu Ala Leu Gly Tyr Glu Gly Asp Arg Trp Gln Tyr Asn Leu Ala  
 545                      550                      555                      560  
 Leu Tyr Arg Asn Arg Phe Gly Asn Tyr Ile Tyr Ala Gln Thr Leu Asn  
 565                      570                      575  
 Asp Gly Arg Gly Pro Lys Ser Ile Glu Asp Asp Ser Glu Met Lys Leu  
 580                      585                      590  
 Val Arg Tyr Asn Gln Ser Gly Ala Asp Phe Tyr Gly Ala Glu Gly Glu  
 595                      600                      605  
 Ile Tyr Phe Lys Pro Thr Pro Arg Tyr Arg Ile Gly Val Ser Gly Asp  
 610                      615                      620  
 Tyr Val Arg Gly Arg Leu Lys Asn Leu Pro Ser Leu Pro Gly Arg Glu  
 625                      630                      635                      640  
 Asp Ala Tyr Gly Asn Arg Pro Phe Ile Ala Gln Asp Asp Gln Asn Ala  
 645                      650                      655  
 Pro Arg Val Pro Ala Ala Arg Leu Gly Phe His Leu Lys Ala Ser Leu  
 660                      665                      670  
 Thr Asp Arg Ile Asp Ala Asn Leu Asp Tyr Tyr Arg Val Phe Ala Gln  
 675                      680                      685  
 Asn Lys Leu Ala Arg Tyr Glu Thr Arg Thr Pro Gly His His Met Leu  
 690                      695                      700  
 Asn Leu Gly Ala Asn Tyr Arg Arg Asn Thr Arg Tyr Gly Glu Trp Asn  
 705                      710                      715                      720  
 Trp Tyr Val Lys Ala Asp Asn Leu Leu Asn Gln Ser Val Tyr Ala His  
 725                      730                      735  
 Ser Ser Phe Leu Ser Asp Thr Pro Gln Met Gly Arg Ser Phe Thr Gly  
 740                      745                      750  
 Gly Val Asn Val Lys Phe  
 755

&lt;210&gt; 3

&lt;211&gt; 2112

&lt;212&gt; DNA

<213> *Neisseria meningitidis*

&lt;400&gt; 3

atgaaaatat catttcattt agctttatta cccacgctga ttattgcttc cttccctgtt      60  
 gctgccgcg atacgcagga caatggtgaa cattacaccg ccacgctacc taccgtttcc      120  
 gtggtcggac agtccgacac cagcgctact aaaggctaca tcaactacga cgaagccgcc      180  
 gttaccgcga acggacagct catcaaagaa acgccgcaaa ccatcgatac gctcaatatt      240  
 cagaaaaaca aaaattacgg tacgaacgat ttgagttcca tcctcgaagg caatgccggc      300  
 atcgacgctg cctacgatat gcgcggcgaa agcattttcc tgcgcggttt tcaagccgat      360

WO 00/55327

PCT/EP00/01955

```

gcacccgata tttaccgaga cggcgtgcgc gaaagcggac aagtgcgccg cagtactgcc      420
aacatcgagc gcgtggaaat cctgaaaggc ccgtcttccg tgctttacgg ccgcaccaac      480
ggcggcggcg tcatcaacat ggtagcaaaa tacgccaaact tcaaacaaag ccgcaacatc      540
ggtgcggttt acggttcgtg ggcaaacgcg agcctgaata tggacattaa cgaagtgtgt      600
aacaaaaacg tcgccatccg tctcaccggc gaagtcgggc gcgccaatc gttccgcagc      660
ggcatagaca gaaaaaatgt catggtttca cccagcatta ccgtcaaaact cgacaacggc      720
ttgaaatgga cggggcaata cacctacgac aatgtggagc gcacgcccga ccgcagtcgg      780
accaagtccg tgtacgaccg cttcggactg cttaccgca tggggttcgc ccaccggaac      840
gattttgtca aagacaagct gcaagtttg cgttccgacc ttgaatacgc cttcaacgac      900
aatggcgtg cccaatggca gctcgcacc cgcacggcg cgcaggattt tgatcatttc      960
tatgcaggca gcgaaaatgg caacttaatc aaacgtaact acgcctggca gcagaccgac     1020
aacaaaaccc tgtcgtccaa cttcacgctc aacggcgact acaccatcgg ccgttttgaa     1080
aaccaccta ccgtaggcat ggattacagc cgcgaaacac gcaaccgac attgggtttc     1140
agacgcaact ttaccgcctc catcgatcca tacgaccgcg caagcaggcc ggcttcgggc     1200
agattgcagc gtattctggc ccaagaccgg cacaagccg actcctacgg catcttcgtg     1260
caaaacatct tctccgccac gcccgatttg aaattcgtcc tcggcggtcg ttacgacaag     1320
tacaccttta attccgaaaa caaactcacc ggcagcagcc gccagtacag cggacactcg     1380
ttcagcccca acatcggtgc agtggtgaac atcaatcccg tccacacact ttacgcctcg     1440
tataacaaag cgttcgcgcc ttatggcgga cgcggcggtt atttgagcat caacacgtcg     1500
tcttcgcggc tgttcaacgc cgaccccgag tacacccgcc aatacgaaac cggcggtcaa     1560
agcagttggc tggacgaccg cctcagcacc acattgtccg cctaccaaat cgaacgcttc     1620
aatatccgct accgccccga cgagcaaaat gatccctaca cttgggcagt cggcggtaaa     1680
cacggttcgc gcggcgtgga attgtccgcc atcgggcaaa tcatcccaa aaaactctat     1740
ctgcgcggtt cgttggggt gatgcaggcg aaagtcgttg aagacaaaaa aaatcccagc     1800
cgagtgggca tccatttgaa taataccagc aacgttaccg gcaacctgtt tttccgttat     1860
acaccgaccg aaaacctcta cggcgaaatc ggcgtaaccg gtacaggcaa acgctacggt     1920
tacaactcaa gaaataaaga agtgactacg cttccaggct ttgcccagat tgatgccatg     1980
ctcgggtgga accataaaaa tgttaacgtt acctttgccg cagccaatct gttcaatcaa     2040
aaatattggc gttcggactc tatgccgggt aatccgcgcg gctatactgc ccgggtaaat     2100
taccgtttct ga                                     2112

```

&lt;210&gt; 4

&lt;211&gt; 703

&lt;212&gt; PRT

<213> *Neisseria meningitidis*

&lt;400&gt; 4

```

Met Lys Ile Ser Phe His Leu Ala Leu Leu Pro Thr Leu Ile Ile Ala
 1              5              10              15
Ser Phe Pro Val Ala Ala Ala Asp Thr Gln Asp Asn Gly Glu His Tyr
              20              25              30
Thr Ala Thr Leu Pro Thr Val Ser Val Val Gly Gln Ser Asp Thr Ser
              35              40              45
Val Leu Lys Gly Tyr Ile Asn Tyr Asp Glu Ala Ala Val Thr Arg Asn

```

WO 00/55327

PCT/EP00/01955

50                      55                      60  
 Gly Gln Leu Ile Lys Glu Thr Pro Gln Thr Ile Asp Thr Leu Asn Ile  
 65                      70                      75                      80  
 Gln Lys Asn Lys Asn Tyr Gly Thr Asn Asp Leu Ser Ser Ile Leu Glu  
                     85                      90                      95  
 Gly Asn Ala Gly Ile Asp Ala Ala Tyr Asp Met Arg Gly Glu Ser Ile  
                     100                      105                      110  
 Phe Leu Arg Gly Phe Gln Ala Asp Ala Ser Asp Ile Tyr Arg Asp Gly  
                     115                      120                      125  
 Val Arg Glu Ser Gly Gln Val Arg Arg Ser Thr Ala Asn Ile Glu Arg  
                     130                      135                      140  
 Val Glu Ile Leu Lys Gly Pro Ser Ser Val Leu Tyr Gly Arg Thr Asn  
 145                      150                      155                      160  
 Gly Gly Gly Val Ile Asn Met Val Ser Lys Tyr Ala Asn Phe Lys Gln  
                     165                      170                      175  
 Ser Arg Asn Ile Gly Ala Val Tyr Gly Ser Trp Ala Asn Arg Ser Leu  
                     180                      185                      190  
 Asn Met Asp Ile Asn Glu Val Leu Asn Lys Asn Val Ala Ile Arg Leu  
                     195                      200                      205  
 Thr Gly Glu Val Gly Arg Ala Asn Ser Phe Arg Ser Gly Ile Asp Ser  
                     210                      215                      220  
 Lys Asn Val Met Val Ser Pro Ser Ile Thr Val Lys Leu Asp Asn Gly  
 225                      230                      235                      240  
 Leu Lys Trp Thr Gly Gln Tyr Thr Tyr Asp Asn Val Glu Arg Thr Pro  
                     245                      250                      255  
 Asp Arg Ser Pro Thr Lys Ser Val Tyr Asp Arg Phe Gly Leu Pro Tyr  
                     260                      265                      270  
 Arg Met Gly Phe Ala His Arg Asn Asp Phe Val Lys Asp Lys Leu Gln  
                     275                      280                      285  
 Val Trp Arg Ser Asp Leu Glu Tyr Ala Phe Asn Asp Lys Trp Arg Ala  
                     290                      295                      300  
 Gln Trp Gln Leu Ala His Arg Thr Ala Ala Gln Asp Phe Asp His Phe  
 305                      310                      315                      320  
 Tyr Ala Gly Ser Glu Asn Gly Asn Leu Ile Lys Arg Asn Tyr Ala Trp  
                     325                      330                      335  
 Gln Gln Thr Asp Asn Lys Thr Leu Ser Ser Asn Phe Thr Leu Asn Gly  
                     340                      345                      350  
 Asp Tyr Thr Ile Gly Arg Phe Glu Asn His Leu Thr Val Gly Met Asp  
                     355                      360                      365  
 Tyr Ser Arg Glu His Arg Asn Pro Thr Leu Gly Phe Arg Arg Asn Phe  
                     370                      375                      380  
 Thr Ala Ser Ile Asp Pro Tyr Asp Arg Ala Ser Arg Pro Ala Ser Gly  
 385                      390                      395                      400  
 Arg Leu Gln Arg Ile Leu Ala Gln Asp Arg His Lys Ala Asp Ser Tyr

WO 00/55327

PCT/EP00/01955

405 410 415  
 Gly Ile Phe Val Gln Asn Ile Phe Ser Ala Thr Pro Asp Leu Lys Phe  
 420 425 430  
 Val Leu Gly Gly Arg Tyr Asp Lys Tyr Thr Phe Asn Ser Glu Asn Lys  
 435 440 445  
 Leu Thr Gly Ser Ser Arg Gln Tyr Ser Gly His Ser Phe Ser Pro Asn  
 450 455 460  
 Ile Gly Ala Val Trp Asn Ile Asn Pro Val His Thr Leu Tyr Ala Ser  
 465 470 475 480  
 Tyr Asn Lys Ala Phe Ala Pro Tyr Gly Gly Arg Gly Gly Tyr Leu Ser  
 485 490 495  
 Ile Asn Thr Ser Ser Ser Ala Val Phe Asn Ala Asp Pro Glu Tyr Thr  
 500 505 510  
 Arg Gln Tyr Glu Thr Gly Val Lys Ser Ser Trp Leu Asp Asp Arg Leu  
 515 520 525  
 Ser Thr Thr Leu Ser Ala Tyr Gln Ile Glu Arg Phe Asn Ile Arg Tyr  
 530 535 540  
 Arg Pro Asp Glu Gln Asn Asp Pro Tyr Thr Trp Ala Val Gly Gly Lys  
 545 550 555 560  
 His Arg Ser Arg Gly Val Glu Leu Ser Ala Ile Gly Gln Ile Ile Pro  
 565 570 575  
 Lys Lys Leu Tyr Leu Arg Gly Ser Leu Gly Val Met Gln Ala Lys Val  
 580 585 590  
 Val Glu Asp Lys Lys Asn Pro Asp Arg Val Gly Ile His Leu Asn Asn  
 595 600 605  
 Thr Ser Asn Val Thr Gly Asn Leu Phe Phe Arg Tyr Thr Pro Thr Glu  
 610 615 620  
 Asn Leu Tyr Gly Glu Ile Gly Val Thr Gly Thr Gly Lys Arg Tyr Gly  
 625 630 635 640  
 Tyr Asn Ser Arg Asn Lys Glu Val Thr Thr Leu Pro Gly Phe Ala Arg  
 645 650 655  
 Val Asp Ala Met Leu Gly Trp Asn His Lys Asn Val Asn Val Thr Phe  
 660 665 670  
 Ala Ala Ala Asn Leu Phe Asn Gln Lys Tyr Trp Arg Ser Asp Ser Met  
 675 680 685  
 Pro Gly Asn Pro Arg Gly Tyr Thr Ala Arg Val Asn Tyr Arg Phe  
 690 695 700

&lt;210&gt; 5

&lt;211&gt; 378

&lt;212&gt; DNA

<213> *Neisseria meningitidis*

&lt;400&gt; 5





WO 00/55327

PCT/EP00/01955

```

gacggcagca ccgtatccgc gcccaacgac ccgtccaact tcgcccgcgt cttggtgatg      480
ctcgacgaac tgggttggat caaactcaaa gacggcatca atccgctgac cgcattcaaa      540
gcggacattg ccgaaaacct gaaaaacatc aaaatcgtcg agcttgaagc cgcgcaactg      600
ccgcgtagcc gcgccgacgt ggattttgcc gtcgtcaacg gcaactacgc cataagcagc      660
ggcatgaagc tgaccgaagc cctgttccaa gaaccgagct ttgcctatgt caactggtct      720
gccgtcaaaa ccgccgacaa agacagccaa tggcttaaag acgtaaccga ggccataaac      780
tccgacgcgt tcaaagccta cgcgcacaaa cgcttcgagg gctacaaatc ccctgccgca      840
tggaatgaag gcgcagctaa ataa                                           864

```

&lt;210&gt; 8

&lt;211&gt; 287

&lt;212&gt; PRT

<213> *Neisseria meningitidis*

&lt;400&gt; 8

```

Met Lys Thr Phe Phe Lys Thr Leu Ser Ala Ala Ala Leu Ala Leu Ile
 1              5              10              15
Leu Ala Ala Cys Gly Gly Gln Lys Asp Ser Ala Pro Ala Ala Ser Ala
          20              25              30
Ser Ala Ala Ala Asp Asn Gly Ala Glu Lys Lys Glu Ile Val Phe Gly
          35              40              45
Thr Thr Val Gly Asp Phe Gly Asp Met Val Lys Glu Gln Ile Gln Ala
          50              55              60
Glu Leu Glu Lys Lys Gly Tyr Thr Val Lys Leu Val Glu Phe Thr Asp
65              70              75              80
Tyr Val Arg Pro Asn Leu Ala Leu Ala Glu Gly Glu Leu Asp Ile Asn
          85              90              95
Val Phe Gln His Lys Pro Tyr Leu Asp Asp Phe Lys Lys Glu His Asn
          100             105             110
Leu Asp Ile Thr Glu Val Phe Gln Val Pro Thr Ala Pro Leu Gly Leu
          115             120             125
Tyr Pro Gly Lys Leu Lys Ser Leu Glu Glu Val Lys Asp Gly Ser Thr
          130             135             140
Val Ser Ala Pro Asn Asp Pro Ser Asn Phe Ala Arg Val Leu Val Met
145             150             155             160
Leu Asp Glu Leu Gly Trp Ile Lys Leu Lys Asp Gly Ile Asn Pro Leu
          165             170             175
Thr Ala Ser Lys Ala Asp Ile Ala Glu Asn Leu Lys Asn Ile Lys Ile
          180             185             190
Val Glu Leu Glu Ala Ala Gln Leu Pro Arg Ser Arg Ala Asp Val Asp
          195             200             205
Phe Ala Val Val Asn Gly Asn Tyr Ala Ile Ser Ser Gly Met Lys Leu
          210             215             220
Thr Glu Ala Leu Phe Gln Glu Pro Ser Phe Ala Tyr Val Asn Trp Ser

```

225                      230                      235                      240  
 Ala Val Lys Thr Ala Asp Lys Asp Ser Gln Trp Leu Lys Asp Val Thr  
                          245                      250                      255  
 Glu Ala Tyr Asn Ser Asp Ala Phe Lys Ala Tyr Ala His Lys Arg Phe  
                          260                      265                      270  
 Glu Gly Tyr Lys Ser Pro Ala Ala Trp Asn Glu Gly Ala Ala Lys  
                          275                      280                      285

<210> 9  
 <211> 966  
 <212> DNA  
 <213> *Neisseria meningitidis*

<400> 9  
 gtgaaaccgc gtttttattg ggcagcctgc gccgtcctgc tgaccgcctg ttcgcccga 60  
 cctgccgcgc aaaaaactgt atccgccgca tccgcatctg ccgccacact gaccgtgccg 120  
 accgcgcggg gcgatgccgt tgtgccgaag aatcccgaac gcgtcgccgt gtacgactgg 180  
 gcggcggttg atacgctgac cgaattgggc gtgaatgtgg gcgcaaccac cgcgccgatg 240  
 cgcgtggatt atttgcagcc tgcatttgac aaggcggcaa cgggtggggac gctgttcgag 300  
 cccgattacg aagccctgca ccgctacaat cctcagcttg tcattaccgg cgggccgggc 360  
 gcggaagcgt atgaacagtt ggcgaaaaac gcgaccacca tagatctgac ggtggacaac 420  
 ggcaatatcc gcaccagcgg cgaaaagcag atggagacct tggcgcggtat tttcggaag 480  
 gaagcgcgcg cggcggaatt gaaggcgag attgacgcgc tgttcgccc aacgcgcgaa 540  
 gccgccaaag gcaaaggacg cgggctggtg ctgtcggtta cgggcaacaa ggtgtccgcc 600  
 ttcggcacgc agtcgcggtt ggcaagtttg atacacggcg acatcgccct accgcctgta 660  
 gacgaatctt tacgcaacga ggggcacggg cagcctgttt ccttcgaata catcaaagag 720  
 aaaaaccccc attggatttt catcatcgac cgtaccgccg ccatcgggca ggaagggccg 780  
 gcggctgtcg aagtattgga taacgcgctg gtacgcggca cgaacgcttg gaagcgcaag 840  
 caaatcatcg tcatgcctgc cgcgaactac attgtcgcgg gcggctcgcg gcagttgatt 900  
 caggcggcgg agcagttgaa ggcggcggtt gaaaaggcag aacccgttgc ggcggggaaa 960  
 gagtag 966

<210> 10  
 <211> 321  
 <212> PRT  
 <213> *Neisseria meningitidis*

<400> 10  
 Met Lys Pro Arg Phe Tyr Trp Ala Ala Cys Ala Val Leu Leu Thr Ala  
 1                      5                      10                      15  
 Cys Ser Pro Glu Pro Ala Ala Glu Lys Thr Val Ser Ala Ala Ser Ala  
                          20                      25                      30  
 Ser Ala Ala Thr Leu Thr Val Pro Thr Ala Arg Gly Asp Ala Val Val  
                          35                      40                      45

Pro Lys Asn Pro Glu Arg Val Ala Val Tyr Asp Trp Ala Ala Leu Asp  
 50 55 60  
 Thr Leu Thr Glu Leu Gly Val Asn Val Gly Ala Thr Thr Ala Pro Met  
 65 70 75 80  
 Arg Val Asp Tyr Leu Gln Pro Ala Phe Asp Lys Ala Ala Thr Val Gly  
 85 90 95  
 Thr Leu Phe Glu Pro Asp Tyr Glu Ala Leu His Arg Tyr Asn Pro Gln  
 100 105 110  
 Leu Val Ile Thr Gly Gly Pro Gly Ala Glu Ala Tyr Glu Gln Leu Ala  
 115 120 125  
 Lys Asn Ala Thr Thr Ile Asp Leu Thr Val Asp Asn Gly Asn Ile Arg  
 130 135 140  
 Thr Ser Gly Glu Lys Gln Met Glu Thr Leu Ala Arg Ile Phe Gly Lys  
 145 150 155 160  
 Glu Ala Arg Ala Ala Glu Leu Lys Ala Gln Ile Asp Ala Leu Phe Ala  
 165 170 175  
 Gln Thr Arg Glu Ala Ala Lys Gly Lys Gly Arg Gly Leu Val Leu Ser  
 180 185 190  
 Val Thr Gly Asn Lys Val Ser Ala Phe Gly Thr Gln Ser Arg Leu Ala  
 195 200 205  
 Ser Trp Ile His Gly Asp Ile Gly Leu Pro Pro Val Asp Glu Ser Leu  
 210 215 220  
 Arg Asn Glu Gly His Gly Gln Pro Val Ser Phe Glu Tyr Ile Lys Glu  
 225 230 235 240  
 Lys Asn Pro Asp Trp Ile Phe Ile Ile Asp Arg Thr Ala Ala Ile Gly  
 245 250 255  
 Gln Glu Gly Pro Ala Ala Val Glu Val Leu Asp Asn Ala Leu Val Arg  
 260 265 270  
 Gly Thr Asn Ala Trp Lys Arg Lys Gln Ile Ile Val Met Pro Ala Ala  
 275 280 285  
 Asn Tyr Ile Val Ala Gly Gly Ser Arg Gln Leu Ile Gln Ala Ala Glu  
 290 295 300  
 Gln Leu Lys Ala Ala Phe Glu Lys Ala Glu Pro Val Ala Ala Gly Lys  
 305 310 315 320  
 Glu